

- b) a fragment of (a) which has agonistic activity on the hGHRH receptor;
- c) a variant of (a) or (b) which has at least 70% sequence identity with (a) or (b) and which has agonistic activity on the hGHRH receptor;
- d) a variant of (a) or (b) which is encoded by a DNA sequence which hybridizes to the complement of the native DNA sequence encoding (a) or (b) under moderately stringent conditions and which has agonistic activity on the hGHRH receptor; or
- f) a salt or functional derivative of (a), (b), (c) or (d) which has agonistic activity on the hGHRH receptor.

5 10 15 20 25 30 35

- 25. Use according to claim 4 or 24, wherein the functional derivative comprises at least one moiety attached to one or more functional groups, which occur as one or more side chains on the amino acid residues.
- 26. Use according to claim 25, wherein the moiety is a polyethylene glycol (PEG) moiety.
- 27. Use of an IGF (Insulin-like Growth Factor), for the preparation of a medicament for treatment and/or prevention of Parkinsonism-Plus Syndromes, in particular of Multiple System Atrophy.
- 28. Use according to claim 27, wherein the IGF is selected from IGF-I or IGF-II.
- 29. Use according to claims 27 or 28, wherein the medicament further comprises and IGFBP (Insulin-like Growth Factor Binding Protein), for simultaneous, sequential, or separate use.
- 30. Use according to claim 29, wherein the IGFBP is IGFBP3.
- 31. Use according to any of claims 27 to 30, wherein the medicament further comprises a substance according to any of claims 1 to 26.
- 32. Use of an nucleic acid molecule comprising the coding sequence of a substance which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance which stimulates release or potentiates the activity of endogenous hGH for the preparation of a medicament for the treatment and/or prevention of a Parkinsonism-Plus Syndrome, in particular Multiple System Atrophy.
- 33. The use according to any of the preceding claims, wherein the medicament is administered subcutaneously.
- 34. The use according to any of claims 1 to 32, wherein the medicament is administered intramuscularly.
- 35. Use according to claim any of the preceding claims, wherein the substance is administered with an auto-injector.

36. Use of a vector for inducing and/or enhancing the endogenous production of a substance which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance which stimulates release or potentiates the activity of endogenous hGH for the preparation of a medicament for the treatment and/or prevention of a Parkinsonism-Plus Syndrome, in particular Multiple System Atrophy.

5

37. Use of a cell that has been genetically modified to produce a substance which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance which stimulates release or potentiates the activity of endogenous hGH for the preparation of a medicament for the treatment and/or prevention of a Parkinsonism-Plus Syndrome, in particular Multiple System Atrophy.

10

38. A method for treating a Parkinsonism-Plus Syndrome, in particular Multiple System Atrophy, comprising administering to a patient in need thereof an effective amount of a substance which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance which stimulates release or potentiates the activity of endogenous hGH.

15